

WHAT IS CLAIMED IS:

1. A voltage booster circuit which boosts an input voltage by using a capacitor and generates a boosted voltage higher than said boosted input voltage, comprising:

an input terminal for applying said input voltage;

an output terminal for outputting said boosted voltage;

n number of N channel transistors connected in series between said input terminal and said output terminal (n is an integer equal to or greater than 1);

n number of first P channel transistors connecting with said plurality of N channel transistors in parallel with each other;

a plurality of terminals for capacitor connections respectively connecting to one electrode of each said N channel transistor and one electrode of each said first P channel transistor corresponding to said N channel transistor; and

a controlling circuit for outputting each controlling signal corresponding to each gate electrode of said plurality of N channel transistors and to each gate electrode of said plurality of first P channel transistors.

2. A voltage booster circuit as claimed in claim 1, further comprising an activation circuit for setting a voltage level of each controlling signal so that said N channel transistor and said first P channel transistor are set in a non-conductive state according to an activation signal.

3. A voltage booster circuit as claimed in claim 1, wherein said controlling circuit comprises a fixing circuit for fixing a voltage level of said controlling signal supplied to a gate electrode of a predetermined N channel transistor of said N channel transistors and a gate electrode of a P channel transistor corresponding to said predetermined N channel transistor of said first P channel transistors according to the k number of selection signals (k is an integer smaller than n when n is 2 or greater).

4. A voltage booster circuit as claimed in claim 2, wherein said controlling circuit comprises a fixing circuit for fixing a voltage level of said controlling signal supplied to a gate electrode of a predetermined N channel transistor of said N channel transistors and a gate electrode of a P channel transistor corresponding to said predetermined N channel transistor of said first P channel transistors according to the k number of selection signals (k is an integer smaller than n when n is 2 or greater).

5. A voltage booster circuit as claimed in claim 1, further comprising a second P channel transistor connecting to said N channel transistor in series between said output terminal and one of said N channel transistors, and of whose a conductive state is controlled by said controlling circuit.

6. A voltage booster circuit as claimed in claim 2, further comprising a second P channel transistor connecting to said N channel transistor in series between said output terminal and one of said N channel transistors, and of whose a conductive state is controlled by said controlling circuit.

7. A voltage booster circuit as claimed in claim 3, further comprising a second P channel transistor connecting to said N channel transistor in series between said output terminal and one of said N channel transistors, and of whose a conductive state is controlled by said controlling circuit.

8. A voltage booster circuit as claimed in claim 4, further comprising a second P channel transistor connecting to said N channel transistor in series between said output terminal and one of said N channel transistors, and of whose a conductive state is controlled by said controlling circuit.

9. A semiconductor device incorporating therein the voltage

booster circuit as claimed in claim 1, wherein said plurality of terminals for capacitor connections are provided as an external terminals of said semiconductor device and said external terminals connect capacitors having any capacity.

10. A semiconductor device incorporating therein the voltage booster circuit as claimed in claim 2, wherein said plurality of terminals for capacitor connections are provided as an external terminals of said semiconductor device and said external terminals can connect capacitors having any capacity.

11. A semiconductor device incorporating therein the voltage booster circuit as claimed in claim 3, wherein said plurality of terminals for capacitor connections are provided as an external terminals of said semiconductor device and said external terminals can connect capacitors having any capacity.

12. A semiconductor device incorporating therein the voltage booster circuit as claimed in claim 4, wherein said plurality of terminals for capacitor connections are provided as an external terminals of said semiconductor device and said external terminals can connect capacitors having any capacity.

13. A semiconductor device incorporating therein the voltage booster circuit as claimed in claim 5, wherein said plurality of terminals for capacitor connections are provided as an external terminals of said semiconductor device and said external terminals can connect capacitors having any capacity.

14. A semiconductor device incorporating therein the voltage booster circuit as claimed in claim 6, wherein said plurality of terminals for capacitor connections are provided as an external terminals of said semiconductor device and said external terminals can connect capacitors having any capacity.

15. A semiconductor device incorporating therein the voltage booster circuit as claimed in claim 7, wherein said plurality of terminals for capacitor connections are provided as an external terminals of said semiconductor device and said external terminals can connect capacitors having any capacity.

16. A semiconductor device incorporating therein the voltage booster circuit as claimed in claim 8, wherein said plurality of terminals for capacitor connections are provided as an external terminals of said semiconductor device and said external terminals can connect capacitors having any capacity.